

WHAT IS CLAIMED IS:

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A.1)

1. An optical scanning apparatus adapted to perform parallel scanning with a plurality of beams on an image recording medium at predetermined pitches, said apparatus comprising:

two semiconductor laser light sources each including a plurality of light emitting devices arranged in a line at equal intervals;

a beam scanner;

a beam converging unit; and

a controller for always controlling an inclination angle of said plurality of light emitting devices with respect to a beam scanning direction of each of said semiconductor laser light sources.

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Sub B1)

2. The optical scanning apparatus according to claim 1, further comprising another controller for detecting a shift in time interval between moments, at which output beams of each of said light sources pass a photodetector provided in vicinity of a beam scanning start edge, and for adjusting the incline angle of each of said light sources.

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A.2)

3. An optical scanning apparatus adapted to perform parallel scanning with a plurality of beams on an image recording medium at predetermined pitches, said apparatus comprising:

two semiconductor laser light sources each including a plurality of light emitting devices arranged in a line at equal intervals;

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A2  
Cont

a beam scanner;

a beam converging unit; and

a controller for always detecting a position in a direction perpendicular to a scanning direction of output beams of each of said light sources even during beam scanning and for controlling a predetermined pitch interval of scanning lines owing to variation in relative position of each of said light sources.

4. An optical scanning apparatus adapted to perform parallel scanning with a plurality of beams on an image recording medium at predetermined pitches, said apparatus comprising:

two semiconductor laser light sources each including a plurality of light emitting devices arranged in a line at equal intervals;

a beam scanner;

a beam converging unit; and

a controller for always controlling a position in a direction perpendicular to a scanning direction of output beams of each of said light sources and controlling an inclination angle of arrangement of said plurality of light emitting devices with respect to a beam scanning direction of each of said semiconductor laser light sources.

5. A beam scanning apparatus, comprising:

A plurality of light sources arranged at predetermined intervals in a line or in a plane;

→ a beam scanner for performing parallel scanning on a recording medium with a plurality of light beams outputted from said plurality of light sources;

a photodetector disposed near to a beam scanning start edge;

a detector for detecting a time interval between moments, at which at least two of said plurality of light beams pass said photodetector, respectively, and for obtaining a shift between the detected time interval and a reference time interval; and

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a controller for controlling positions of said light sources according to the obtained shift so that an interval between scanning positions of a plurality of scanning beams on the recording medium is always at a predetermined value.

6. The beam scanning apparatus according to claim 5, wherein said controller is adapted to rotate a direction of arrangement of the plurality of light sources with respect to a scanning direction of beams in a scanning surface.

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A3

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